COMPARISONS AND RELATIONSHIPS OF READING ACHIEVEMENT AND SOCIO-ECONOMIC STATUS OF MOBILE AND NON-MOBILE FIFTH GRADE PUPILS IN CLARKE COUNTY, GEORGIA

A THESIS

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BY

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DEDICATION

To

My Mother, Julia H. Hardeman

To

My Father, Lucas F. Hardeman

And To

My Brothers,

R. Garfield Hardeman

Jerome Hardeman

Edwin H. Hardeman

Martin B. Hardeman

Max L. Hardeman

For their cooperation, patience, and encouragement during the period of my graduate training.

W. I. H.

ACKNOWLEDGEMENTS

The writer wishes to express her sincere thanks and appreciation to all who have contributed to the successful completion of this research. She wishes to express direct thanks to Mrs. M. H. Jellins and Dr. Lynette S. Gaines, advisor and co-advisor, respectively, for their patience, direction, and guidance; to the sixty fifth grade pupils who were subjects in this research; and to Dr. Lawrence E. Boyd and Dr. Grady Anderson, for their significant contribution to her success in the completion of this research.

W. I. H.

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CHAPTER I

INTRODUCTION

Rationale

The ability to read is today considered the essential ingredient for success in our educational system. A primary concern of modern education is to provide each child with this important tool for learning. The interaction of numerous variables either aids or hinders the child in his reading achievement. Some of these variables, to name a few, might be the home environment, the child's mental and physical health, intelligence, and motivation. Any teacher could name a relatively long list of factors which might affect a given child's reading skills.

A variable not often discussed, but which may have some effect on a child's achievement in reading, is that of mobility. Many American families move each year to a new residence. These moves force children to change schools, leave friends and acquaintances, and sometimes adapt to a whole new way of life. Stability in the early school years is essential to the integration of the school and society. It is important that the young child spend a considerable period at school with a person whom he knows and trusts and

who knows and respects him. In the early years, a child develops a sense of the world as basically orderly or as basically unpredictable, a sense of ability to deal with his environment or a sense of helplessness, a sense of self-reliance, or a sense of dependency. The stimulating teacher uses many means of arousing interest and attention, but too frequent changes of people, place, or atmosphere are unsettling, particularly in a society where many stimuli compete for the child's attention.[1]

Changes now appearing in the patterns of living and in the character of reading material have increased the importance of good reading. For example, the increase in time for leisure provides more opportunity for reading, for enjoyment, and self-improvement. Publishers are now producing not only much more and better fiction and popular science, but also material relating to various vocations and avocations. The need to learn more in increasingly numerous and varied fields has brought with it the demand that both children and adults learn to read better today than in days gone by. A half century ago when the average family had

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[1]Walter T. Snipes, "The Effect of Moving on Reading Achievement," The Reading Teacher, XIX, No. 4 (December, 1966), 242.

relatively little reading matter at hand, ability to read in a limited variety of ways at a slow pace was fairly inadequate to meet the demands of many jobs, not to mention the need to keep pace with the stream of new developments, ideas, and problems which pour daily from the press. The school today must set up as one of its objectives the development of more rapid, more versatile, and more varied reading techniques than were considered necessary a generation ago.[1]

Studies investigating the effect of moving on reading achievement are meager and inconclusive, yielding no final answers. Sackett and Daughtery concluded that the mobile child may be better prepared in some areas of reading achievement than the non-mobile child.[2] Bollenbacher concluded that when IQ and social status are controlled, the mobile child is the least capable.[3]

The conflicting conclusions of the available studies are evidence of the need for further research in the area.

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[1]Arthur I. Gates, "Teaching Reading," What Research Says to the Teacher (Washington, D. C.: American Educational Research Association, 1960), p. 4.

[2]E. B. Sackett, The Effect of Moving on the Education of Children," Elementary School Journal, XXI (March, 1955), 517.

[3]Joan Bollenbacher, "Study of the Effect of Mobility on Reading Achievement," Reading Teacher, XIX, No. 4 (March, 1962), 356.

Evolution of the Problem

For the past ten years, the writer has worked in the area of elementary education. During this time, she has encountered numerous pupils who for various reasons have moved during their elementary school careers.

A number of these pupils had lived in several different states, while others had simply moved to various sections of the same state; still others had moved several times within the same city. A small number had experienced school-life outside the continental United States.

The writer observed certain factors or characteristics between the mobile and non-mobile pupils such as attention span, range of interests, general academic performance, especially responses to questions for which critical reading was required.

The calibre of participation and performance seems to indicate the possibility or probability that the achievement of the student is related to or affected by school mobility.

Contribution to Educational Knowledge

A probable value of this and similar studies is the extent to which the findings with proper interpretations may be used to suggest changes in educational institutions geared toward more effective learning. It is the desire of the

writer that the findings of this research would make educators more aware of and sensitive to the need for enriched experiences toward fundamental education of children that cooperative and coordinated curriculum planning will result.

Statement of the Problem

The problem involved in this study was to determine differences and relationships which existed in reading achievement and socio-economic status of mobile and non-mobile fifth grade pupils.

Limitation of the Study

One limitation of the study is that it will concern only fifth grade pupils enrolled at the East Athens School during the school year 1967-68. A second limitation inhered is the fact that only two instruments were used to gather the information basic to this study. Although they are representative, more penetrating devices might have improved the study.

Purposes of the Study

The purposes of the study were manifold. The major purpose was to test the following Null hypotheses: (1) that there is no significant difference in reading achievement of mobile and non-mobile groups; and (2) that there is no significant difference in socio-economic status between

mobile and non-mobile groups. Additional purposes were: (1) to determine any relationships which may exist between mibility and achievement in reading; and (2) to determine any relationships which may exist between mobility and socio-economic status.

Method of Research

The descriptive-survey method was employed utilizing standardized tests to collect the necessary data. The primary means of data collection consisted of the administration of standardized tests and rating scales. The data were treated through the use of statistical measures of central tendency and variability and Pearsonian Product - moment coefficient of correlation. The Fisher's "t" was used to determine significance of differences.

Definition of Terms

The writer feels that the definitions of the following terms were basic in this study:

1. Mobile pupils--those pupils who have attended more than one school since entering the first grade.

2. Non-mobile pupils--those pupils who have attended only East Athens Elementary School since entering the first grade.

3. Number of moves--refers to the total number of separate schools attended by the student from grade one through grade five.

Locale of the Study

The city of Athens, northeast Georgia's principal city, is located in the Piedmont Plateau section of the state. Clarke County is Georgia's smallest county in area.

Athens is located on Highway number 78, and at the junction of Highway 29. The city is surrounded by the following counties: Jackson to the North, Madison to the East, Oglethorpe and Oconee to the South, and Walton and Barrow to the West.

Athens is the county seat of Clark County, and is considered an educational center. This characgerization is based on the fact that the oldest chartered university in the nation is located there. Athens, Clark County, and the university have all grown rapidly until the city now has a population of approximately 38,000, excluding the year-round enrollment in excess of 7,500 students at the University of Georgia. The city is rapidly growing into an industrial one with many of the larger industries locating there; namely General Times, Westinghouse, Dairy Pax, and Burmac.

The East Athens School was the first Negro school built in Athens under the Minimum Foundation Program, which accounts for its lack of some of the modern facilities that other elementary schools of Athens may have. Much of the ten acres included in the school site is in need of landscaping;

but there is ample play area for the outdoor educational and recreational needs of the children and adults, with adequate space for expansion. The school plant is a one-story brick structure consisting of nineteen classrooms, a cafetorium, a teachers' lounge, a library, a book storage room, a principal's office, four rest rooms, and a kitchen.

The instructional staff consists of a principal, seventeen teachers, a librarian, and a secretary. Four of the teachers have acquired Master Degrees in Education. The remaining teachers are studying toward the Master's degree. The non-professional staff consists of one maid, four cooks, and two janitors. The school is located in a low socio-economic area and the children who attend the school may be considered economically and culturally disadvantaged. There are four churches and one cloth factory in the immediate school community. The school enrollment for the year 1967-68 was 540.

The Subjects and Period of Study

During the school year 1967-68, sixty fifth grade pupils at the East Athens Elementary School in Athens, Georgia, were used in this study. The sex distribution of the pupils was thirty-one girls and twenty-nine boys. They ranged in age from ten years to eleven years. The subjects were mostly from lower middle class homes. In the average

family, the parents had not completed high school training.

It was revealed that approximately twenty per cent of the subjects did not have access to television, radio, newspapers, or magazines in the home; consequently, they were exposed to these media of information only in the school.

Description of Instruments

The California Achievement Tests are designed for measurement, evaluation, and diagnosis of school achievement. The complete battery contains the following subtests: Reading, Arithmetic, and Language. The three tests are further divided into two parts each; the Reading Test consists of Reading Vocabulary and Reading Comprehension; the Arithmetic Test consists of Arithmetic Reasoning and Arithmetic Fundamentals; and the Language Test consists of Mechanics of English and Spelling. The parts of each test, with the exception of Spelling, are divided into sections.

It is recommended for use in the analysis of group differences among school subjects and also of the differences in the abilities of individual pupils in the various subjects for the purposes of planning individualized instruction, grouping pupils for instructional purposes, determining and evaluating rate of progress, and evaluating achievement. It is further recommended for use in the study

of strengths and weaknesses for a grade or a school or a system as a whole, in evaluating instructional methods and materials, and as a source of information on which to base curriculum changes. The average estimates of reliability ranging from .83 to .90, indicate that the test may appropriately serve these purposes.

The manual which accompanies each battery makes the task of administering and scoring the tests a comparatively simple one. The directions to the teacher for giving the tests and to the pupils for taking are quite clear and simple.[1]

Warner's Index of Status Characteristics measured the socio-economic levels of the community and, when related to Evaluated Participation, makes it possible for the status analyst to say what is meant in socio-economic terms by such class concepts as upper, middle, or lower class and, correspondingly, what is meant by higher or lower socio-economic levels in terms of social class and Evaluated Participation.

The Index of Status Characteristics as a measurement of social class is posed on two propositions: that economic

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[1]Willis W. Clark and Ernerst Tiegs, California Achievement Test (Monterey, California: California Test Bureau, 1957).

and other prestige factors are highly important and closely correlated with social class; and that these social and economic factors, such as talent, income, and money, if their potentialities for rank are to be realized must be translated into social-class behavior acceptable to the members of any given social level of the community. This method is designed to provide an objective method for establishing the social level of everyone in the community and to do so by simple, inexpensive means. The skills involved are very few: the amount of information needed is msall; the length of time necessary, brief. The data for each characteristic in the Status Index was easily acquired and did not necessarily require interviewing.

The four status characteristics used in the Index were chosen because they correlated highly with class and because they were easily obtained and capable of exact comparison among all American communities. They are Occupation, Source of Income, House Type, and Dwelling Area. The basic criterion for choosing them was that they express in con crete form the two basic propositions which underlie the method of I. S. C.[1]

The most important fact to remember about using the

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[1]W. Lloyd Warner, Social Class in America (Chicago: Science Research Associates, Inc., 1949), p. 40.

I. S. C. as a measurement of social class is that, in order, for it to be a reliable instrument and an accurate index of social class, each of the four characteristics and the points in their scales must reflect how Americans feel and think about the relative worth of each job, the sources of income which support them, and the evaluation of their houses and the neighborhood in which they live. The house, job, income, or the neighborhood are not being measured as is man's evaluations of these which have been, in some way, structured by cultural traditions and society. Therefore, the four characteristics aforementioned represent symbols, signs of status, indicating class levels of those who possess the symbols.

By measuring the symbols, we measure the relative worth of each; and by adding up their several "worths," reflecting diverse and complex economic and social values, we get a score which tells us what we think and feel about the worth of man's social participation, meaning essentially, that we are measuring his Evaluated Participation of social class.[1]

The first step in securing an I. S. C. for any given individual in a community was to obtain ratings for him on

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[1] Ibid., p. 41.

each of the four status characteristics---occupation, source of income, house type, and dwelling area---which comprise the Index. These ratings are made on seven-point scales which are included in the appendix of this research report. The four ratings are then totaled, after assigning to each one a weight which expresses the importance of that particular status characteristic in social-class prediction. The resultant indexes ranged from 12 (very high socio-economic status) to 84 (very low status). A sample calculation for one individual follows:

Status Characteristic	Rating Weight		Weighted Rating
Occupation . . .	2 X 4	=	8
Source of Income .	3 X 3	=	9
House Type . . .	2 X 3	=	6
Dwelling Area . .	3 X 2	=	6
Weighted Total			29

The California Short-Form Test of Mental Maturity is an instrument for appraising mental development or mental capacity. It reveals information that is basic to any interpretation of present functioning and future potential in a relatively specific but critical area of human activities. This information is of particular interest to teachers, counselors, and psychologists. By means of carefully selected and validated items, this test samples mental

processes in four areas: spatial relationships, logical reasoning, numerical reasoning, and verbal concepts. Two summary scores, Language and Non-Language, together with the four factor scores, produce the significant interpretative data of the test.[1]

The validity of the California Short-Form Test of Mental Maturity is attested to by its high correlation with IQs obtained from the Wechsler-Bellevue Intelligence Scale for Children (WISC). Clark reports a correlation of 0.81 between the California Short-Form Test of Mental Maturity Advanced, and the Wechsler-Bellevue Test. Altus reports a correlation of 0.77 between the California Short-Form Test of Mental Maturity-Elementary, and the Wechsler Intelligence Scale for Children. These studies revealed correlation of approximately 0.80 between three levels of the Short-Form and the Wechsler tests.

Procedural Steps

The following steps were employed in conducting this study:

1. Permission to conduct this study was secured from the superintendent and administrative staff of the East Athens School.

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[1]Elizabeth T. Sullivan, Willis W. Clark, and Ernest Tiegs, California Test of Mental Maturity (Monterey, California: California Test Bureau, 1957).

2. The literature related to this study was reviewed and summarized.

3. The subjects were divided into two groups, mobile and non-mobile, with each consisting of thirty pupils. The mobile group was determined by random selection. The non-mobile group was equated with the randomly selected group. The groups were equated on the basis of age, IQ, and sex.

4. Both groups were given the reading section of the California Achievement Test Complete Battery, Form W.

5. The groups were classified in terms of socio-economic status on the basis of Warner's Index of Status Characteristics.

6. The data were compiled and presented with the necessary computations, analyses, and interpretations that are warranted by the purpose of this investigation.

Survey of Related Literature

Today as one becomes aware of the many types of retardation among pupils, he is motivated to strive continuously to search for answers to their many problems.

A variable not often discussed, but which may have some effect on a child's achievement in reading, is that of mobility. Many American families move each year to a new residence. These moves force children to change schools, leave friends and acquaintances, and sometimes adapt to a whole new way of life.

The literature in this study concerns itself with findings relative to (1) general mobility; (2) mobility and achievement; and (3) mobility and reading achievement.

Literature related to general mobility

Mobility is increasingly becoming a permanent characteristic of modern life. Punke concluded in a 1933 report that increasing mobility since 1900 is due to improved transportation facilities, an increase in wealth per capita, and an increased acquaintance with other parts of our country and the world through improved educational facilities.[1] The factors all seem to apply today in even greater force than in 1933.

Population mobility, both horizontal and vertical, is a highly significant aspect of modern society. As a topic of interest and concern, it has received attention from governmental agencies and many private investigators.

Phillips, referring to approximately the same factors as Punke, reported that the upward trend will continue and that pupil mobility will increase in the future.[2] He says there are many questions about pupil mobility that need to be answered. For example, do pupils who move long distances

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[1] H. H. Punke, "Educational Implications of a Mobile Population," Elementary School Journal, XXXIII (March, 1933), 514.

[2] B. N. Phillips, "Impact of Pupil Mobility on the School," Educational Administration and Superintendents Journal, XL, No. 2 (February, 1957), 101-107.

have greater and different problems of adjustment than those who are less mobile?

There are many other similar questions about student mobility to which definite answers are needed. Certain recognizable problems should be foreseen and planned for so that mobile pupils can be helped to adjust better to changing patterns of behavior and to meet new experiences with zest. Knowledge is also needed about the types of mobility prevalent in our country today and some characteristics of our mobile population. Bell and Green stated that teachers often erroneously assume that mobile pupils come from lower cultural levels than do non-mobiles.[1]

The United States Bureau of the Census reported that out of 145,000,000 population in our country in 1950, there were 25,000,000 mobiles.[2] It was reported that the most mobile group was the young married group of those of an age to have children in school.

In commenting on the educational implications of student mobility, Martin has stated that:

> Mobility challenges us to use the strange, the new, and the different as a

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[1]J. W. Bell and A. S. Green, "Pupil Mobility Problems in Chicago," American School Board Journal, XL (March, 1957), 41-42.

[2]U. S. Bureau of the Census, Nineteenth Census of the United States: 1950. Population, II, 97.

> resource for enriching children's creative intelligence, developing and sensitizing their feelings of sympathy and kindness for others, giving them skills in interpreting and adjusting to change.[1]

That the total gross amount of mobility in American society has been rather extensive for nearly a century is indicated by the report that from 1850 to 1940, approximately one-fifth of the total population enumerated in each census year was born in states other than their state of residence.

The fact that the general population is becoming increasingly more mobile is indicated by the finding that of the persons reported on during 1950 and 1960, 18 per cent were mobile in 1960 as contrasted with 12 per cent in 1950.[2]

Rossi, in studying urban residential mobility, found that about one person in every five shifts residences over a one-year period. He also stated:

> About three-quarters of our urban citizens were living in 1950 in places in which they did not reside in 1940. America's city dwellers change their housing, it seems, almost as often as they change their cars.[3]

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[1]F. K. Martin, "Mobility," Childhood Education, XXXV (September, 1957), 34.

[2]United States Bureau of the Census, Twentieth Census of the United States: 1960. Population VII, 74.

[3]Peter G. Rossi, Why Families Move (Glenco, Illinois: The Free Press, 1955), p. 1.

Rossi also found the most mobile elements of the population studied were families with children. Large families were found to be relatively more mobile than were older ones. He concluded that more knowledge is needed about mobility because it is one of the most important forces underlying changes in urban areas.[1]

In a report on labor mobility prepared by Palmer, a change of jobs was found to be the most important single reason for mobility between different cities.[2] The search for job opportunities, and the condition of the labor market, then, are relatively important as active factors in mobility. Palmer adds that when employment is at a high level, increases in occupational mobility reflect an improvement in economic conditions.[3]

Literature related to mobility and achievement

Sackett reviews in some detail a study by Guy E. Joy which was based on a Panama Canal Zone Population. The Joy study used as subjects transient elementary schools in the Canal Zone. Transient children were found to be superior to

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[1] Ibid., p. 6.

[2] Gladys L. Palmer, Labor Mobility in Six Cities (New York: Social Science Research Council, 1954). p. 47.

[3] Ibid., p. 7.

be superior to the natives in all school subjects except arithmetic computation, as measured by the New Stanford Achievement Test. It was concluded that this superiority in academic achievement of the transients was not due to more efficient schooling they had received in the United States prior to moving to the Canal Zone since the Canal Zone school were found to be highly efficient.

Sackett, using Joy's original data, obtained 101 pairs of students equated on the basis of sex, grade placement, chronological age, and intelligence quotients. All of these pupils were white and of American stock from English-speaking homes. As a whole, the group had a good social background. One group were transients composed of students who had attended schools outside of the Canal Zone. The other group was composed of native students who had attended only Canal Zone schools. A comparison was made between these varied groups based on educational quotients and subject age in reading and arithmetic as determined by the New Stanford Achievement Test. The results showed transient children to be superior to the native children in the above cited comparisons. The "re-worked" findings by Sackett differ from Joy's original findings only in that the transients were found to be superior also in arithmetic computations, when sex, grade placement, chronological age, and intelligence quotients were held constant by group

equation.[1]

Moore went further and divided her mobile students into the three following groups:

1. Those who made one change of residence;
2. Those who had made two or three changes of residence;
3. Those who had made three or more changes of residence.

There were 17 pupils in the first group, 17 in the second group, and 16 in the third group. These groups were not equated, but no statistical differences were found in their mental or chronological ages. Comparisons made of these groups on the teacher ratings show some differences; however, the groups were too small for the differences to be of significant value. Where the differences occurred, they favored the first group and the third group over the second group. Differences in the other items compared were not significant.[2] Moore cited Dawson's study in which he compared four groups, varying in number of separate school attended from one to over five, on the basis of school grades

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[1]E. B. Sackett, "The Effects of Moving on the Education of Children," Elementary School Journal, XXXV (March, 1955), 517-526.

[2]Katherine T. Moore, "A Comparative Study of School Adjustments of Mobile and Non-Mobile Children in Walton County, Georgia," Unpublished Master's thesis, Department of Education, University of Georgia, 1941), p. 38.

and out-of-class activities. Dawson found no significant difference in these groups on the factors compared. However, these students who were the most mobile and with IQs above average received higher school grades than did students of the same IQs in the least mobile group. Mobility was interpreted as having had an adverse effect on the achievement of students who were of average or below average in IQ. Dawson also found that migratory students participated more frequently in extra-curricular activities than did the non-migrants.[1]

Corbally, in his study of mobility as a factor in school failure, found that high school students who had been in as many as four different schools averaged only one month higher in age-grade placement than those who had attended only one school.[2]

In studying Missouri high school graduates, Philbad and Gregory found that those who had moved as far away as another county in the state, to adjoining states, or to other states were superior in intelligence, as measured by the Ohio Psychological Examination, to those who had not moved at all or those who had moved only short distances.

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[1] Ibid., pp. 10-11.

[2] Ibid., p. 136.

This study seems to indicate that migrants, as a group, are more intelligent than non-migrants; however, the authors point out that the explanation of this difference may lie in the relatively wider scope of search for economic opportunities among the more intelligent versus the less intelligent.[1]

In this comparative study of migrant and non-migrant students, Downie called attention to the frequently expressed belief that moving about from one community to another is apt to have an adverse effect on a child's intelligence test score and his social adjustment. He studied school children in Hermiston, Oregon, a town having a high percentage of mobile population. Children having made one or two moves, or those having been in the school system from one to three years often moving, seemed to have greater average social acceptance than those having made no moves, or those having moved more than two times. Those who had been in the school less than a year were not as well accepted by their peers as were those who had been in the same school a year or

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[1]C. L. Gregory and C. T. Philbad, "Selective Aspects of Migration Among Missouri High School Graduates," American Sociological Review, XXX (January, 1954), pp. 314-324.

longer.[1]

Bollenbacher found that pupils who stayed in the same school earned a higher median score on the reading test, but they also were more capable, as indicated by the median score on the intelligence test.

To determine whether the differences in reading achievement were due to the effects of moving from school to school, or due to the differences in the ability of the groups, a detailed statistical analysis was made of the data, using covariance techniques. When the differences in the intelligence test scores of the groups were taken into consideration, the results of the covariance analysis indicated that reading achievement as measured by a standardized test was not affected by the number of schools attended. It is interesting to note that data on the Stanford arithmetic test were analyzed similarly and revealed essentially the same findings as the analysis for the reading test results.[2]

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[1]N. W. Downie, "A Comparison Between Children Who Have Moved From School to School With Those Who Have Been in Continuous Residence on Various Factors of Adjustment," Journal of Educational Psychology, XL (January, 1953), p. 50.

[2]Joan Bollenbacher, "Study of the Effect of Mobility on Reading Achievement," Reading Teacher (March, 1962), pp. 356-360.

> According to the findings of this study, then, achievement in reading and arithmetic as measured by standardized tests was not affected by the mobility of this sixth-grade group. Rather, it should be noted that pupils included in this study who moved most often were consistently the least capable, as measured by a group intelligence test.
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> Needless to say, these findings surprised the teachers and contradicted the opinions held by many that the reading achievement of pupils who move frequently will be lower than the achievement of similar pupils who have not moved.
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> In explaining the findings of this study to principals and teachers, it was pointed out that the common opinions in Cincinnati regarding mobility and achievement are easy to understand. A mobile pupil is likely to be a low achiever in reading, but the fact that his low achievement is related to his proportionately low ability is likely to be overlooked. An individual teacher usually does not have a large enough sample of mobile students to conduct a significant study of the relationship of mobility to achievement and ability.[1]

Another study stressing the relationship of mobility and IQ was made by Smith who reported that among 85 University of Kansas students, there was a small positive relationship between mobility and IQ. The immobile subjects had the smallest mean IQ, while the subjects having moved 1, 2, 5, 6, and 7 or more times had increasingly higher IQs.

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[1] Ibid., pp. 356-360.

Commenting on his findings, Smith states that:

> Mobility increases knowledge, stimulates curiosity, tends to develop speed of response, encourages imagination, and develops mental flexibility, all of which qualities help improve intelligence test performance.[1]

Brown found not an appreciable difference in school achievement or IQ or migratory and non-migratory pupils in Carbon Hill, Alabama.[2]

Much of the research reviewed in this section has been of fairly similar research design, although the reported findings were occasionally contradictory. Sackett found school achievement to be positively related to mobility in his particular study Joy's data. Dawson and Moore each found no significant relationship between mobility and school achievement. Corbally found that mobility was not appreciably related to failure in high school.

Philbad and Gregory considered IQ as a variable in relationship to mobility. They found that test intelligence increases with distance of migration from original place of residence. In this case, however, the original points were farms or small towns and the search for economic opportunities seemed to lie behind mobility. These authors did not

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[1] M. Smith, "Some Relationships Between Intelligence and Geographic Mobility," American Sociological Review, VIII (March, 1943), p. 647.

[2] Moore, op. cit., p. 12.

consider the number of moves made nor the recentcy of the moves, but only distance from the origin.

Downie found no difference in the IQs of mobile and non-mobiles. He considered the relationship of social adjustment to mobility and found that those who had made relatively few moves were more readily accepted socially than were the non-mobiles or highly mobile persons. The acceptance, in this case, could have depended more on the attitude of the local pupils toward newcomers than on the newcomer's attitude toward the local pupils.

Literature related to mobility and reading achievement

The following conclusions appear to summarize the literature related to mobility and reading achievement:

1. The number of moves pupils make does not appear to have a detrimental effect on achievement in reading. Rather, moving appears to strengthen achievement in this specific variable.

2. The data seem to indicate that pupils who have had some experience in various schools tend to score higher on tests of reading achievement. The grade levels at which these changes occur are independent of achievement.

3. Pupils who have lived in other states and countries appear to be favored in reading achievement over non-movers or in-state movers.

4. No specific area of reading achievement (reading vocabulary or reading comprehension) appears to be favored in moving.

> However, differences are more explicit in the area of reading comprehension than in reading vocabulary.[1]

The research lends weight to the idea that the problems of the mobile child are probably not academic problems. This seems to be important to modern-day teachers who are basically concerned with academic progress, yet are faced with pupil mobility problems.

Summary of related literature

That mobility is a concern of the public schools cannot be denied. Mobility is not limited to the very poor or migrant population. Recent research points out that certain identifiable patterns may be noted in mobility trends. The most obvious patterns are those revealing that individuals who move do so according to certain aspects of sex, occupation, age, intelligence, and education. Studies tend to show that mobility is a far-reaching, multi-faceted aspect of our society.

Smith found a small positive relationship between IQ and the number of moves made. Brown found no appreciable difference between the school achievement or IQ of migrant and non-migrants.

Snipes' findings revealed that mobility may be a

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[1]Walter T. Snipes, op. cit., p. 245.

significant variable in reading achievement. However, the relationship is positive: the moving pupils achieving greater success in reading vocabulary and reading comprehension.

Sackett and Daugherty concluded that the mobile child may be better prepared in some areas of reading achievement than the non-mobile child.[1]

Bollenbacher concluded that when IQ and social status are controlled, the mobile child is the least capable.[2]

In view of the variations in the findings reported above, and in view of the general paucity of valid information concerning the correlates of school mobility, the need for studies of the type herein undertaken appears to be evident.

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[1]Sackett, op. cit., p. 517

[2]Bollenbacher, op. cit., p. 356.

CHAPTER II

PRESENTATION AND ANALYSIS OF DATA

Organization and Treatment of the Data

The problem in this study was to determine if differences existed in reading achievement and socio-economic status of mobile and non-mobile fifth grade pupils.

In order to solve the problem, the writer proposed to test two "Null" hypotheses: (1) that there is no significant difference in reading achievement of mobile and non-mobile groups. (2) that there is no significant difference in socio-economic status in mobile and non-mobile groups.

The "Null" hypotheses were tested through the use of two main instruments:

(1) The California Achievement Test, which is designed for measurement, evaluation, and diagnosis of school achievement. It is recommended for use in the analysis of group differences among school subjects and also of the differences in the abilities of individual pupils in the various subjects for the purpose of planning aindividualized instruction, grouping pupils for instructional purposes, determining and evaluating rate of progress, and evaluating

achievement. It is further recommended for use in the study of strengths and weaknesses for a grade or for a school or a system as a whole, in evaluating instructional methods and materials, and as a source of information on which to base curriculum changes.

(2) Warner's Index of Status Characteristics, which measures the socio-economic levels of the community and, when related to evaluated participation, makes it possible for the status analyst to say what is meant in socio-economic terms by such class concepts as upper, middle, or lower class, and, correspondingly, what is meant by higher or lower socio-economic levels in terms of social class and evaluated participation. This method is designed to provide an objective method for establishing the social levels of everyone in the community and to do so by simple, inexpensive means. The skills involved are very few: the amount of information needed is small; the length of time necessary brief. The data for each characteristic in the status index are easily acquired and do not necessarily require interviewing. The four status characteristics used in the index were chosen because they correlated highly with class and because they are easily obtained and capable of exact comparison among all American communities. They are Occupation, Source of Income, House Type, and Dwelling Area.

The basic criterion for choosing them was that they express in concrete form the two basic propositions which underlie the method of the I. S.C.

The subjects were selected from groups of mobile and non-mobile pupils who were enrolled in the fifth grade at East Athens Elementary School, Athens, Georgia. The thirty mobile subjects were randomly selected from a total group of one hundred twenty-seven mobile fifth grade pupils. The thirty non-mobile subjects were equated on the bases of age, IQ, and sex. The California Test of Mental Maturity served as a basis for obtaining IQs for the purpose of equating the groups.[1]

Both groups were given the reading section of the California Achievement Test Complete Battery, Form W.[2] The groups were classified in terms of socio-economic status on the basis of Warner's Scale.[3] The data were compiled and

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[1]Elizabeth T. Sullivan, Willis W. Clark and Ernest Tiegs, California Test of Mental Maturity (Monterey, California: California Bureau, 1957).

[2]Willis W. Clark and Ernest Tiegs, California Achievement Test (Monterey, California: California Test Bureau, 1957).

[3]W. Lloyd Warner, Social Class in America (Chicago: Science Research Associates, Inc., 1949), p. 40.

presented with the necessary computations, analyses, and interpretations that are warranted by the purpose of this investigation.

Organization and treatment of data.

The analysis and evaluation of the data to be presented in this chapter were derived from three major sources, namely: (a) the performance of the pupils on the California Test of Mental Maturity; (b) the performance of the pupils on the California Achievement Test, Form W.; and (c) the indices on socio-economic status. These three sets of data were statistically treated to determine the significant difference of performance and indices between a group of "Mobile" and a group of "Non-Mobile" fifth grade pupils, to determine the evidence of correlations on the variables of the three test instruments.

Criterion of reliability.

The criterion of reliability for the statistics of comparison and correlation were: (a) Fisher's "t" of 2.58 at the .01 per cent level of confidence at 58 degrees of freedom; (b) Fisher's "t" of 2.58 at the respective degrees of freedom; and Fisher's "t" of 2.58 at the .01 per cent level of confidence at the respective degrees of freedom,

with reference to z-score equivalents.[1]

For presentation the data were treated around a series of basic tables. There are 4 tables which will present frequency distribution, measures of variability and "t" differences of the raw scores for the sixty pupils on each of the variables of the tests as used in this study. There is a fifth table which presents the data on the correlations and the differences of the correlations on the paired variables of the tests. The tables will give the basic statistics in regards to measures of central tendency and variability.

In order to fulfill more adequately the purposes of the research, the data are presented and discussed under three specific headings: (1) An Analysis of Reading Achievement of a Selected Group of Mobile and Non-Mobile Pupils, (2) An Analysis of the Socio-Economic Status of a Selected Group of Mobile and Non-Mobile Pupils, and (3) An Intercorrelation of Data on Mobile and Non-Mobile Groups.

Indices on Intelligence

This section of the research report presents the

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[1]Henry E. Garrett, Statistics in Education and Psychology (New York: Longmans, Green and Company, Inc., 1951), pp. 189-194.

data on the level of mental growth and development of the thirty fifth-grade pupils in the mobile and the thirty fifth grade pupils in the non-mobile groups enrolled in the East Athens Elementary School, Athens, Georgia, which are presented in Table 1. The data presented and analyzed employed the statistics of mean standard deviation, standard error of the mean, the Fisher's "t" test for the significance of the difference between the two groups.

The California Test of Mental Maturity, Form S, 1950 Edition, was given to all pupils. This test measures ability to determine special relationships, logical reasoning, numerical reasoning, and verbal concepts. The test is divided into two parts, language and non-language. The language test data are useful in determining how well the individual understands relationships expressed in words and the non-language test data indicates how well the child understands relationships among things or objects when no language is involved.

Table 1 shows the results of the test. It will be noted with reference to the mobile group that intelligence quotients ranged from a low of 73 to a high of 122, with a mean of 101.50, a standard deviation of 10.59, and standard error of the mean of 1.96. This indicates average ability according to the test manual.

TABLE 1

DISTRIBUTION OF THE INTELLIGENCE QUOTIENTS ON THE CALIFORNIA TEST OF MENTAL MATURITY AS OBTAINED BY THE THIRTY MOBILE AND THIRTY NON-MOBILE FIFTH GRADE PUPILS OF THE EAST ATHENS ELEMENTARY SCHOOL, ATHENS, GEORGIA, 1967-1968

IQs	Mobile		Non-Mobile	
	Number	Per Cent	Number	Per Cent
133-137	0	0	2	6.66
123-132	0	0	0	
123-127	0	0	1	3.33
118-122	1	3.33	0	0
113-117	5	16.65	1	3.33
108-112	3	9.99	3	9.99
103-107	3	9.99	4	13.32
98-102	8	26.64	6	19.98
93- 97	7	23.31	6	19.98
88- 92	1	3.33	6	19.98
883- 87	0	0	1	3.33
78- 82	0	0	0	0
73- 77	2	6.66	0	0
TOTAL	30	100	30	100
Mean	101.50		101.83	
Sigma	10.59		11.95	
SE.	1.96		2.29	
Gr. Pl.				
	Diff. mean	.33		
SE	Diff. mean	2.06		
	"t"	.16		

It will be noted with reference to the non-mobile group that intelligence quotients ranged from a low of 83 to a high of 137 with a mean of 101.83, a standard deviation of 11.95, and standard error of the mean of 2.29. This indicates average ability according to the test manual.

California Test of Mental Maturity

The data on the Intelligence Quotients of the California Test of Mental Maturity as revealed by the raw scores obtained by the thirty fifth grade pupils classified as mobile and the thirty fifth grade pupils classified as non-mobile who were enrolled at East Athens Elementary School, Athens, Georgia, 1967-68, are presented in Table 1, page 36, and are analyzed in the separate paragraphs below.

Mobile group.--For the thirty fifth grade pupils in the mobile group, IQs ranged from a low of 73 to a high of 122, with a mean of 101.50, a standard deviation of 10.59, and a standard error of the mean of 1.96. Twelve or 39.96 per cent scored above the mean, ten or 33.30 per cent scored below the mean, and eight or 26.64 per cent scored within the mean class-interval. The mean IQ of 101.50 indicated an IQ index which was two points above the norm of expectancy in mental development.

Non-mobile group.--For the thirty fifth grade pupils in the non-mobile group, the IQs ranged from a low of 83 to

a high of 137, with a mean of 101.83, a standard deviation of 11.95, and a standard error of the mean of 2.29. Eleven or 36.63 per cent scored above the mean, thirteen or 43.29 per cent scored below the mean, and six or 19.98 per cent scored within the mean class-interval. The mean IQ of 101.83 was two points above the norm of expectancy in mental development.

"t" comparison of the groups.--Table 1, page 36, shows the comparative measures for the two groups were as follows: the mean was 101.50 and 101.83 for the mobile and non-mobile groups, respectively, with a difference of .33 in favor of the mobile group; the standard deviation was 10.59 and 11.95 for the mobile and non-mobile groups, respectively, with a difference of .36 in favor of the non-mobile group. The standard error of the difference between the two means was 2.06.

The "t" for these data was .16 which was not significant for it was less than 2.53 at the one (.01) per cent level of confidence at 58 degrees of freedom. Therefore, the difference of the Intelligence Quotient on the California Test of Mental Maturity was not statistically significant for these two groups of pupils.

Interpretative summary

A summary of the above data on the intelligence indexes of the two groups would appear to indicate the

following:

(1) That the two groups (mobile and non-mobile fifth graders), were experiencing the same and/or similar levels of mental growth and development; for there was not a significant ("t") difference between their performance on the California Test of Mental Maturity.

(2) That the two groups of fifth graders were equated with reference to their potential for learning.

(3) That the scholastic performance of the two groups of fifth graders would be influenced by teaching methods used, levels of aspiration, and socio-economic status of the family, and not by any difference in the level of intelligence.

An Analysis of Socio-Economic Status of Mobile and Non-Mobile Groups

This section of this research report presents the data on the socio-economic status of the mobile and non-mobile groups, respectively, together with reference to Fisher's "t" test of the significance of the difference. It will be remembered that the scores on Warner's Index of Status Characteristics are interpreted from 12 (very high socio-economic status) to 84 (very low socio-economic status).[1]

The possible detrimental effects of mobility on

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[1] W. Lloyd Warner, op. cit., p. 40.

socio-economic status have been discussed by Rossi. He asserted that stability is essential to the integration of the school and society. He emphasized that too frequent changes of people, place, or atmosphere are unsettling, particularly in a society where many stimuli compete for the individual's attention. Cases are cited in which citizens change their places of residence in an effort to enhance socio-economic status. The movers feel that morale is likely to be high in economically more favored areas. However, in the vast majority of cases, it requires several years of effort and sacrifice for the movers to acquire the necessary friends, to get himself established in his new surroundings, and to find a lucrative job that will lend itself to the desired socio-economic status.[1]

Bell and Green stated that teachers often erroneously assume that mobile pupils come from lower cultural levels than non-mobiles.[2]

Joan Bollenbacher conducted a study of, "The Effect of Mobility on Reading Achievement," relative to pupils attending Cincinnati public schools. She concluded that when IQ and social status are controlled, the mobile child

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[1]Peter H. Rossi, Why Families Move (Glenco, Illinois: The Free Press, 1955), p. 40.

[2]J. W. Bell and A. S.Green, op. cit., pp. 41-42.

is the least capable. She found that pupils who stayed in the same school earned a higher median score on the reading test, but they also were more capable, as indicated by the median score on the intelligence test.

To determine whether the differences in reading achievement were due to the effects of moving from school to school or due to the differences in the ability of the groups, the writer made a detailed statistical analysis of the data, using covariance techniques. When the differences in intelligence test scores of the groups were taken into consideration, the results of the covariance analysis indicated that reading achievement was measured by a standardized test was not affected by the number of schools attended. It is interesting to note that data on the Stanford arithmetic test were analyzed similarly and revealed essentially the same findings as the analysis for the reading test results.[1]

Warner's ratings of status characteristics for mobile and non-mobile groups

The data on the Warner's Index of Status Characteristics revealed by the raw scores obtained by the thirty fifth grade pupils classified as "Mobile" who were enrolled in the East Athens Elementary School, Athens, Georgia, 1967-68, are

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[1]Joan Bollenbacher, "Study of the Effect of Mobility on Reading Achievement," Reading Teacher, XIX, No. 4 (March, 1962), 356.

presented in Table 2. These data are analyzed in the separate paragraphs below.

Mobile group.--For the fifth grade pupils in the mobile group, the scores on the Warner Index ranged from a low of 28 to a high of 87, with a mean of 64.34, a standard deviation of 5.10, and a standard error of the mean of .95. Eight of 26.64 per cent scored above the mean, fifteen or 49.95 per cent scored below the mean, and seven or 23.31 per cent scored within the mean class-interval. The mean score of 64.34 indicated a socio-economic index which represents upper-lower class socio-economic status.

Non-mobile group.--For the thirty fifth grade pupils in the non-mobile group, the scores ranged from a low of 28 to a high of 87, with a mean of 65.17, a standard deviation of 12.20 and a standard error of the mean of 2.26. Ten or 33.30 per cent scored within the mean class-interval. The mean score of 65.17 indicated a socio-economic index of which represents upper-lower class socio-economic status.

"t" comparison of the groups.--Table 2, page 43, shows the comparative measures for the two groups were as follows: the mean was 64.34 and 65.17 for the mobile and non-mobile groups, respectively, with a difference of 83 in favor of the non mobile group; the standard deviation was 5.10 and 12.20 for the mobile and non-mobile groups, respectively, with a difference of 7.10 in favor of the non-mobile group.

TABLE 2

DISTRIBUTION OF THE RAW SCORES OF SOCIO-ECONOMIC STATUS AS CLASSIFIED BY WARNER'S INDEX OF STATUS CHARACTERISTICS OBTAINED BY THE THIRTY MOBILE AND THIRTY NON-MOBILE FIFTH GRADE PUPILS OF THE EAST ATHENS ELEMENTARY SCHOOL, ATHENS, GEORGIA, 1967-1968

Scores	Mobile		Non-Mobile	
	Number	Per Cent	Number	Per Cent
83-87	0		4	0
78-82				
73-77	3	9.99	1	9.99
68-72	5	16.65	5	16.65
63-68	7	23.31	10	33.30
58-62	15	49.95	8	26.64
53-57				
48-52				
43-47				
38-42				
33-37				
28-32			2	6.66
Total	30		30	
Mean	64.34		65.17	
Sigma	5.10		12.20	
SE	.95		2.26	
	Diff. mean		.83	
	SE diff. mean		1.705	
	"t"		.486	

The standard error of the difference between the two means was 1.705.

The "t" for these data was .486, which was not significant for it was less than 2.58 at the (.01) per cent level of confidence at 58 degrees of freedom. Therefore, the difference on the Warner's Index of Status Characteristics was not statistically significant for these two groups of pupils.

Interpretative summary.--The data on the socio-economic status of the families of the two groups of pupils indicate the following:

(1) That the two groups (mobile and non-mobile) fifth grade pupils were not taken from different socio-economic levels in the community.

(2) That the findings in this study are not at variance with the findings in the study conducted by Snipes.

An Analysis of Reading Achievement of Mobile and Non-Mobile Pupils

This section of the research report presents the data on the scholastic achievement in: reading vocabulary and reading comprehension for the mobile and non-mobile groups, respectively, with the comparison of the performance of the two groups with reference to Fisher's "t" test of the significant differences. These quantitative data are presented in Tables 3 and 4.

Studies investigating the effect of mobility on

reading achievement are meager and inconclusive. Yielding no final answers, Sackett and Daugherty concluded that the mobile child may be better prepared in some areas of reading achievement than the non-mobile child.[1] Bollenbacher concluded that when IQ and social status are controlled, the mobile child is the least capable.[2]

Snipes reached the following conclusions relative to mobility and reading achievement:

> (1) The number of residential moves pupils make does not appear to have a detrimental effect on achievement in reading. Rather, moving appears to strengthen achievement in this specific variable.
>
> (2) The data seem to indicate that pupils who have had some experience in various schools tend to score higher on tests of reading achievement. The grade levels at which these changes occur are independent of achievement.
>
> (3) Pupils who have lived in other states and countries appear to be favored in reading achievement over non-movers or in-state movers.
>
> (4) No specific area of reading achievement (reading vocabulary or reading comprehension) appears to be favored by the residential moving of pupils. However, differences are more explicit

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[1] E. B. Sackett, "The Effects of Moving on the Education of Children," Elementary School Journal, XXV (March, 1955), 517.

[2] Joan Bollenbacher, op. cit., p. 356.

in the area of reading comprehension than in reading vocabulary.[1]

California Achievement Test (Reading Vocabulary)

The data on the reading vocabulary component of the California Achievement Test as revealed by the raw scores obtained by the thirty fifth grade pupils classified as non-mobile in the East Athens Elementary School, Athens, Georgia, 1967-68, are presented in Table 3, page 48, and are analyzed in the separate paragraphs below.

Mobile group.--Table 3 shows that for the thirty fifth grade pupils in the mobile group, the scores ranged from a low or 23 to a high of 49, with a mean of 35.70, a standard deviation of 3.03, and a standard error of the mean of .56. Eighteen or 60 per cent scored above the mean, two or 6.66 per cent scored below the mean, and 33.33 per cent scored within the class-interval. The mean score of 35.70 indicated a grade-placement index of 5.7, which was five points above the norm or expectancy in reading vocabulary.

Non-mobile group.--Table 3 further shows that for the thirty fifth grade pupils in the non-mobile group, the vocabulary scores ranged from a low of 23 to a high of 49 with a mean of 31.59, a standard deviation of 6.39, and a standard error of the mean of 1.19. Thirteen or 43.29 per

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[1]Walter T. Snipes, op. cit., p. 245.

cent scored above the mean, thirteen or 43.29 per cent scored below the mean, and four or 13.32 per cent scored within the mean class-interval. The mean of 31.59 indicated a grade placement equivalent of 5.3 which was two months above the norm of expectancy in reading vocabulary.

"t" comparison of the groups.--Table 3, page 48, shows the comparative measures for the two groups were as follows: the mean was 35.70 and 31.59 for the mobile and non-mobile groups, respectively, with a difference of 4.11 in favor of the mobile group; the standard deviation was 3.03 and 6.39 for the mobile and non-mobile groups, respectively, with a difference of 3.36 in favor of the non-mobile group. The standard error of the difference between the two means was .91.

The "t" for these data was 4.516, which was significant, for it was more than 2.59 at the (.01) per cent level of confidence at 58 degrees of freedom. Therefore, the difference on the reading vocabulary section of the California Achievement Test was statistically significant for these two groups of pupils. The result meant that the non-mobile group did significantly better on the vocabulary section and hence, reflected a certain receptivity to whatever was being done to increase word meaning in regular classroom activities.

TABLE 3

DISTRIBUTION OF THE RAW SCORES ON THE CALIFORNIA ACHIEVEMENT TEST (READING VOCABULARY), FORM W, AS OBTAINED BY THE THIRTY MOBILE AND THIRTY NON-MOBILE GROUPED FIFTH GRADE PUPILS OF THE EAST ATHENS ELEMENTARY SCHOOL, ATHENS, GEORGIA, 1967-1968

Scores	Mobile		Non-Mobile	
	Number	Per Cent	Number	Per Cent
47-49	0	0	1	3.33
44-46	0	0	0	0
41-43	1	3.33	3	9.99
38-40	0	27.97	2	6.66
35-37	8	26.64	3	9.99
32-34	10	33.30	4	13.32
29-31	2	6.60	4	13.32
26-28	0	0	8	26.64
23-25	0	0	5	16.65
Total	30		30	
Mean	35.70		31.59	
Sigma	3.03		6.39	
SE	.56		1.19	
Gr. Pl.				
Diff. mean	4.11			
SE diff. mean	.91			
"t"	4.516			

California Achievement Test (Reading Comprehension)

The data on the reading component of the California

Achievement Test as revealed by the raw scores obtained by the thirty fifth grade pupils classified as mobile, and the thirty fifth grade pupils classified as non-mobile, in the East Athens Elementary School, Athens, Georgia, 1967-1968, are presented in Table 4, and are analyzed in separate paragraphs below.

Mobile group.--It may be noted on Table 4 that for the thirty fifth grade pupils in the mobile group, the reading comprehension scores ranged from a low of 29 to a high of 64, with a mean of 43.29, a standard deviation of 5.40, and a standard error of the mean of 1.01. Thirteen or 43.29 per cent scored above the mean; eight or 26.64 per cent scored below the mean, and nine or 29.97 scored within the mean class-interval. The mean score of 43.29 indicated a reading comprehension index which was three months above the norm of expectancy in reading comprehension.

Non-mobile group.--For the thirty fifth grade pupils in the non-mobile group, the reading comprehension scores ranged from a low of 20 to a high of 64 with a mean of 42.20, a standard deviation of 8.55, and a standard error of the mean of 1.59. Thirteen or 43.29 per cent scored above the mean, eleven or 36.63 per cent scored below the mean, and six or 19.98 per cent scored within the mean class-interval. The mean score of 42.20 indicated a grade placement index of 5.4, which was two points above the norm of expectancy in reading comprehension.

TABLE 4

DISTRIBUTION OF THE RAW SCORES ON THE CALIFORNIA ACHIEVEMENT TEST (READING COMPREHENSION), FORM W, AS OBTAINED BY THE THIRTY MOBILE AND THIRTY NON-MOBILE GROUPED FIFTH GRADE PUPILS OF THE EAST ATHENS ELEMENTARY SCHOOL, ATHENS, GEORGIA, 1967-1968

Scores	Mobile		Non-Mobile	
	Number	Per Cent	Number	Per Cent
62-64	0		1	3.33
59-61	1	3.33	1	3.33
56-58	0	0	0	0
53-55	0	0	2	6.66
50-52	1	3.33	1	3.33
47-49	6	19.98	2	6.66
44-46	5	16.65	6	19.93
41-43	9	27.97	6	19.98
38-40	5	16.65	1	3.33
35-37	2	6.66	3	9.99
32-34	0	0	3	9.99
29-31	1	3.33	4	13.32
Total	30		30	
Mean	43.29		42.20	
Sigma	5.40		8.55	
SE	1.01		1.59	
Gr. Pl.				
Diff. mean	1.09			
SE diff. mean	1.304			
"t"	.835			

"t" comparison of the groups.--Table 4, page 50, shows the comparative measures for the two groups were as follows: the mean was 43.29 and 42.20 for the mobile and non-mobile groups, respectively, with a difference of 1.09 in favor of the mobile group. The standard error of the difference between the two means was 1.304.

The "t" for these data was .835 which was not significant for it was less than 2.58 at the (.01) per cent level of confidence at 58 degrees of freedom. Therefore, the difference on the reading comprehension component of the California Achievement Test was not statistically significant for these two groups of pupils.

Interpretative summary.--A summary of the data on reading vocabulary and reading comprehension would appear to indicate the following:

(1) That the two groups (mobile and non-mobile) fifth graders were experiencing meaningful differences in scholastic achievement in some areas; for there was a significant "t" of 4.516 in favor of the mobile group.

(2) That the mobile group of fifth-graders was significantly superior in the level of achievement in reading vocabulary.

(3) That there was not any significant difference in performance in reading comprehension between the two groups (mobile and non-mobile) as indicated by a "t" index of .835.

(4) That there was not any advantage of disadvantage in being a mobile or non-mobile pupil in gaining superior performance in the area of reading comprehension.

(5) That attendance at more than one school does not seriously affect the achievement of reading comprehension of fifth grade pupils.

In general, the analysis and interpretation of the scores indicated that mobility does not affect reading achievement. The data collected relative to this population tend to agree with the findings of Sackett and Daugherty who concluded that the mobile child may be better prepared in some areas of reading achievement than the non-mobile child. This, of course, is contradictory to the findings of Snipes who feels that no specific area of reading achievement was favored by the mobility of pupils, but that reading comprehension was higher than reading vocabulary for mobile pupils. With references to this study, reading vocabulary was favored by pupil mobility.

According to the findings of this study, then, achievement in reading as measured by standardized tests was not affected by the mobility of this population. Rather, it should be noted that pupils included in this study who moved were favored in reading vocabulary.

Needless to say, these findings surprised the teachers and contradicted the opinions held by many that the reading

achievement of pupils who move will be lower than the achievement of similar pupils who do not move.

In explaining the findings of this study, the writer noted that the common opinions regarding mobility and achievement are easy to understand. A mobile pupil is likely to be a low achiever in reading, but the fact that his low achievement is related to his proportionately low ability is likely to be overlooked.

The Significance of Correlations on Intelligence, Reading, and Socio-Economic Status

There were two main objectives in the treatment of the data of this research, to wit: (a) to determine the significant difference on the variables of intelligence, achievement, and socio-economic status between the two groups (mobile and non-mobile) of fifth-grade pupils; and (b) to determine the degree of correlation, if any, among the paired variables on reading and socio-economic status on the tests administered to them, and in addition, to determine the significance of the difference between the r's for the two groups' performance on reading and socio-economic status.

Therefore, the fourth section of this research report presents the data on the observed correlations between the four paired variables of: (a) reading vocabulary and reading comprehension; (b) reading vocabulary and socio-economic status; (c) reading vocabulary and intelligence;

and (c) reading comprehension and socio-economic status for the mobile and non-mobile groups, respectively, of the sixty fifth-grade pupils in the East Athens Elementary School, Athens, Georgia, 1967-68.

Coefficient of correlation

Table 5, page 55, presents the data on the observed correlations for the paired variables on the California Achievement Test for the "Mobile" and Non-Mobile" groups, respectively, of the fifth-graders enrolled at East Athens Elementary School, Athens, Georgia, 1967-68.

Mobile group.--Table 5 shows the coefficient of correlation on the paired variables of reading vocabulary and reading comprehension. This table shows the "r" was .31 with a "t" of 1.73. This "t" was not significant. On the paired variables of reading vocabulary and socio-economic status, the "r" was .30, with a "t" of 1.67 which was not significant. On the paired variables of reading vocabulary and intelligence quotient, the "r" was .15, with a "t" of .80, which was not significant. On the paired variables of reading comprehension and socio-economic status, the "r" was .002, with a "t" of .12, which was not significant.

A summary review of the computed "r's," if the criterion of reliability of a "t" of 2.58 is applied, reveals that all four of these correlations were not significant.

TABLE 5

CORRELATIONS FOR THE PAIRED VARIABLES ON THE CALIFORNIA TEST OF MENTAL MATURITY, CALIFORNIA ACHIEVEMENT TEST, AND SOCIO-ECONOMIC STATUS FOR THE TWO GROUPS, MOBILE AND NON-MOBILE FIFTH GRADE PUPILS, EAST ATHENS ELEMENTARY SCHOOL, ATHENS, GEORGIA, 1967-1968

Paired Variables	Mobile		Non-Mobile	
	r	"t"	r	"t"
Reading Vocabulary Reading Comprehension	.31	1.73	.61	4.08*
Reading Vocabulary Socio-economic Status	.30	1.67	.32	1.78
Reading Vocabulary Intelligence Quotient	.15	.80	.73	5.65*
Reading Comprehension Socio-economic Status	.002	.12	.37	2.15

*Significant at the .01 per cent level of confidence

Non-mobile group.---On the paired variables of reading vocabulary and reading comprehension, the "r" was .61, with a "t" of 4.08, which was significant; on the paired variables of reading vocabulary and socio-economic status, the "r" was .32 with a "t" of 1.78, which was not significant; on the paired variables of reading vocabulary and Intelligence Quotient, the "r" was .73, with a "t" of 5.65, which was significant; and on the paired variables of reading

comprehension and socio-economic status, the "r" was .37, with a "t" of 2.15, which was not significant.

A summary of the computed "r's," if the criterion of reliability of a "t" of 2.58 is applied, reveals that two of the correlations: reading vocabulary and reading comprehension and reading vocabulary and Intelligence Quotient 4.08 and 5.65 respectively, were significant; whereas the "r" of 1.78 for reading vocabulary and socio-economic status and 2.15 for reading comprehension and socio-economic status were not significant.

Interpretative summary.--The observed correlations on the paired variables of vocabulary, comprehension, and socio-economic status for the mobile and non-mobile pupils indicated:

(1) That reading vocabulary and reading comprehension are quite similar factors in the activity of reading for the non-mobile group, as indicated by the significant "t" of 4.08; whereas, reading vocabulary and socio-economic status are not significantly related or associated for either the mobile or non-mobile group.

(2) That moving does not seriously affect, or is not a serious factor in the observed correlation among the variables of reading vocabulary, reading comprehension, and socio-economic status of pupils.

Bollenbacher stated that when IQ and social status

are controlled, the mobile child is the least capable. The findings, relative to this population, do not agree with her findings and conclusions. Instead, the scores indicate that the mobile pupils were more capable wherever there was a difference.

CHAPTER III

SUMMARY AND CONCLUSIONS

Background Summary

The ability to read is today considered the essential ingredient for success in our educational system. A primary concern of modern education is to provide each child with this important tool for learning. The interaction of numerous variables either aids or hinders the child in his reading achievement. Some of these variables, to name a few, might be the home environment, the child's mental and physical health, intelligence, and motivation. Any teacher could name a relatively long list of factors which might affect a given child's reading skills.

A variable not often discussed, but which may have some affect on a child's achievement in reading, is that of mobility. Many American families move each year to a new residence. These moves force children to change schools, leave friends and acquaintances, and sometimes adapt to a whole new way of life. In the early years, a child develops a sense of the world as basically orderly or basically unpredictable, a sense of ability to deal with his environment, or a sense of dependency. The stimulating teacher uses many

means of arousing interest and attention, but too frequent changes of people, place, or atmosphere are unsettling, particularly in a society where many stimuli compete for the child's attention.[1]

The school today must set up as one of its objectives the development of more rapid, more versatile, and more varied reading techniques than were considered necessary a generation ago.[2]

Studies investigating the effect of moving on reading achievement are meager and inconclusive, yielding no final answers. Sackett and Daugherty concluded that the mobile child may be better prepared in some areas of reading achievement than the non-mobile child.[3] Bollenbacher concluded that when IQ and social status are controlled, the mobile child is the least capable.[4]

The conflicting conclusions of the available studies are evidence of the need for further research in the area.

For the past ten years, the writer has worked in the

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[1]Walter T. Snipes, "The Effect of Moving on Reading Achievement," The Reading Teacher (December, 1966), 242.

[2]Arthur I. Gates, "Teaching Reading," What Research Says to the Teacher (September, 1960), pp. 4-6.

[3]E. B. Sackett, "The Effect of Moving on the Education of Children," Elementary School Journal (March, 1955) 517-526.

[4]Joan Bollenbacher, "Study of the Effect of Mobility on Reading Achievement," Reading Teacher (March, 1962), 356-360.

area of elementary education. During this time, she has encountered numerous pupils who for various reasons have moved during their elementary school careers.

The writer observed certain factors or characteristics between the mobile and non-mobile pupils such as attention span, range of interests, general academic performance, especially responses to questions for which critical reading was required.

The calibre of participation and performance seems to indicate the possibility or probability that the achievement of the student is related to or affected by school mobility.

A probable value of this and similar studies is the extent to which the findings with proper interpretations may be used to suggest changes in educational institutions geared toward more effective learning. It is the desire of the writer that the findings of this research would make educators more aware of and sensitive to the need for enriched experiences toward fundamental education of children that cooperative and coordinated curriculum planning will result.

Statement of the Problem

The statement involved in this study was to determine differences and relationships which existed in reading achievement and socio-economic status of mobile and non-mobile fifth grade pupils.

Limitations of the Study

One limitation of the study was that it concerned only fifth grade pupils enrolled at the East Athens School during the school year 1967-68. A second limitation inhered is the fact that only two instruments were used to gather the information basic to this study. Although they are representative, more penetrating devices might have improved the study.

Purposes of the Study

The purposes of the study were manifold. The major purpose was to test the following Null hypothesis: (1) that there was no significant difference in reading achievement of mobile and non-mobile groups. Additional purposes may be stated as follows: (1) to determine any relationships which may exist between mobility and achievement in reading; (2) to determine any relationships which may exist between mobility and socio-economic status.

Locale and Research Design

Significant aspects of the locale and research design of this research are outlined below:

(1) Locale--The gathering of the data necessary for the development of this study was done in the East Athens Elementary School, Athens, Georgia, the county seat of Clarke County, which is located in the

Piedmont Plateau section of the state. The 1960 Census showed an official population of 31,355; since then the city limits have been extended several miles. Athens is seventy miles east of Atlanta..

(2) Period of Study--This study was conducted during the school year of 1967-68, School of Education, Atlanta University, Atlanta, Georgia.

(3) Method of Research--The Descriptive-Survey Method of research, utilizing standardized tests, interviews, official records, and statistical analysis was used to collect and interpret the data required to fulfill the purposes of the study.

(4) Description of Subjects--The subjects involved in this study were thirty mobile and thirty non-mobile fifth grade pupils of the East Athens School, Athens, Georgia. The ages of the subjects ranged from 10 to 11 years.

(5) Description of Instruments--The instruments used in the research were: (a) the California Short-Form Test of Mental Maturity by Sullivan, Clark, and Tiegs; (b) the California Achievement Test by E. Tiegs and W. W. Clark; the Index of Status Characteristics by W. Lloyd Warner.

(6) Criterion of Reliability--The "criterion of reliability" used to test the significant differences of the data between the two groups of mobile and non-mobile fifth grade pupils was Fisher's "t" of 2.58 at the one per cent level of confidence for 58 degrees of freedom.

(7) Research Procedures--The procedural steps which were used: (a) permission secured to conduct the study;

(b) pertinent literature surveyed; (c) subjects divided into two groups, mobile and non-mobile with each consisting of thirty pupils; (d) mobile group determined by random selection; (e) non-mobile group equated with the randomly selected group; (f) groups equated on the basis of age, IQ, and sex; (g) two tests, the California Short-Form Test of Mental Maturity, and the California Achievement Test were administered; (h) groups classified in terms of socio-economic status appropriately tabulated and statistically treated with reference to Fisher's "t."

Summary of Related Literature

The summary of the survey of the related literature pertinent to the problem of this research which dealt with the reading achievement and socio-economic status of the mobile and non-mobile fifth grade pupils led to the selection and generalization of the more significant and abstracted statements as given under appropriate captions below.

Literature related to general mobility

1. Mobility is increasingly becoming a permanent characteristic of modern life.

2. Punke concluded in a 1933 report that increasing mobility since 1900 is due to improved transportation facilities, and increased acquaintance with other parts of our country and the world through improved educational facilities.

3. Population mobility, both horizontal and vertical, is a highly significant aspect of modern society. As a topic

of interest and concern, it has received attention from governmental agencies and many private investigators.

4. Phillips, referring to approximately the same factors as Punke, reported that pupil mobility will increase in the future. He states there are many questions about pupil mobility that need to be answered. For example, do pupils who move long distances have greater and different problems of adjustment than those who are less mobile?

5. There are many other similar questions about student mobility to which definite answers are needed. Certain recognizable problems should be foreseen and planned for so that mobile pupils can be helped to adjust better to changing patterns of behavior and to meet new experiences with zest. Knowledge is also needed about the types of mobility prevalent in our country today and some characteristics of our mobile population.

6. Bill and Breen state that teachers often erroneously assume that mobile pupils come from lower cultural levels than do non-mobiles.

7. The United States Bureau of the Census reported that out of 145,000,000 population in our country in 1950, there were 25,000,000 mobiles. It was reported that the most mobile group was the young married group of those of an age to have children in school.

8. In commenting on the educational implications of student mobility, Martin states that mobility challenges us to use the strange, the new, and the different as a resource for enriching children's creative intelligence, developing and sensitizing their feelings of sympathy and kindness for others, giving them skills in interpreting and adjusting to change.

9. That the total gross amount of mobility in American society has been rather extensive for nearly a century is indicated by the report that from 1850 to 1940, approximately one-fifth of the total population enumerated in each census year was born in states other than their state of residence.

10. The fact that the general population is becoming increasingly more mobile is indicated by the finding that of the persons reported on during 1950 and 1960, 18 per cent were mobile in 1960, as contrasted with 12 per cent in 1950.

11. Rossi, in studying urban residential mobility, found that about one person in every five shifts residences over a one-year period. He states about three-quarters of our urban citizens were living in 1950 in places in which they did not reside in 1940. America's city dwellers change their housing, it seems, almost as often as they change their cars.

12. Rossi also found the most mobile elements of the population studied were families with children. Large families were found to be relatively more mobile than were small ones, and young families were relatively more mobile than were older ones. He concluded that more knowledge is needed about mobility because it is one of the most important forces underlying changes in urban areas.

13. In a report on labor mobility prepared by Palmer, a change of jobs was found to be the most important single reason for mobility between different cities. The search for job opportunities, and the conditions of the labor market, then, are relatively important as factors in mobility. Palmer adds that when employment is at a high level, increases in occupational mobility reflect on improvement in economic conditions.

Literature related to mobility and achievement

1. Sackett reviews in some detail a study by Guy C. Joy which was based on a Panama Canal Zone Population. The Joy study used as subjects transient elementary school children in the canal zone. Transient children were found to be superior to the natives in all school subjects except arithmetic computation, as measured by the New Stanford Achievement Test.

2. It was concluded that this superiority in academic achievement of the transients was not due to more efficient schooling they had received in the United States prior to moving to the canal zone schools since the canal zone schools were found to be highly efficient.

3. Sackett, using Joy's original data, obtained 101 pairs of students equated on the basis of sex, grade placement, chronological age, and intelligence quotients. All of these pupils were white and of American stock from English-speaking homes. As a whole, the group had a good social background. One group were transients composed of students who had attended schools outside of the canal zone. The other group was composed of native students who had attended only canal zone schools. A comparison was made between these paired groups based on educational quotients and subject age in reading and arithmetic as determined by the New Stanford Achievement Test. The results showed transient children to be superior to the native children in the above cited comparisons.

4. These "reworked" findings by Sackett differ from Joy's original findings only in that the transients were found to be of superior also in

arithmetic computations, when sex, grade placement, chronological age, and intelligence quotients were held constant by group equation.

5. Moore went further and divided her mobile students into the three following groups:

   a. Those who had made one change of residence;

   b. Those who had made two or three changes of residence;

   c. Those who had made three or more changes of residence.

   There were 17 pupils in the first group, 17 in the second group, and 16 in the third group. These groups were not equated, but no statistical differences were found in their mental or chronological ages. Comparisons made on these groups on the teacher ratings show some differences; however, the groups were too small for the differences to be of significant value. Where the differences occurred, they favored the first group and the third group over the second group. Differences in the other items compared were not significant.

6. Moore cited Dawson's study in which he compared four groups, varying in number of separate school attended from one to over five, on the basis of school grades and out-of-class activities. Dawson found no significant differences in these groups on the factors compared. However, these students who were the most mobile and with IQs above average, received higher school grades than did students of the same IQs in the least mobile group. Mobility was interpreted as having had an adverse affect on the achievement of students who were of average or below average in IQ. Dawson also found that migratory students participated more

frequently in extra-curricular activities than did the non-migrants.

7. Corbally, in his study of mobility as a factor in school failure, found that high school students who had been in as many as four different schools averaged only one month higher in age-grade placement than those who had attended only one school.

8. In studying Missouri high school graduates, Phibad and Gregory found that those who had moved as far away as another county in the state to adjoining states, or to other states, were superior in intelligence, as measured by the Ohio Psychological Examination, to those who had not moved at all or those who had moved only short distances. This study seems to indicate that migrants, as a group, are more intelligent than non-migrants; however, the authors point out that the explanation of this difference may lie in the relatively wider scope of search for economic opportunities among the more intelligent versus the less intelligent.

9. In this comparative study of migrant and non-migrant students, Downie called attention to the frequently expressed belief that moving about from one community to another is apt to have an adverse effect on a child's intelligence test score and his social adjustment. He studied school children in Hermiston, Oregon, a town having a high percentage of mobile population. Children who had been very mobile reportedly had IQs comparable to children who had been in continuous residence in Hermiston. Children having made one or two moves, or those having been in the school system from one to three years often moving, seemed to have greater average social accpetacne than those having made no moves, or those having moved more than two times. Those who had been in the school

less than a year were not as well accepted by their peers as were those who had been in the same school a year or longer.

10. Another study stressing the relationship of mobility and IQ was made by Smith who reported that among 85 University of Kansas students, there was a small positive relationship between mobility and IQ. The immobile subjects had the smallest mean IQ, while the subjects having moved 1, 2, 5, 6, and 7, or more times had increasingly higher IQs. Commenting on his findings, Smith states that:

> Mobility increases knowledge, stimulates curiosity, tends to develop speed of response, encourages imagination, and develops mental flexibility, all of which qualities help improve intelligence test performance.

11. Brown found not an appreciable difference in school achievement or IQ of migratory and non-migratory pupils in Carbon Hill, Alabama.

12. Much of the research reviewed in this report has been of fairly similar research design, although the reported findings were occasionally contradictory.

13. Sackett found school achievement to be positively related to mobility in his particular study, using Joy's data.

14. Dawson and Moore each found no significant relationship between mobility and school achievement.

15. Corbally found that mobility was not appreciably related to failure in high school.

16. Philbad and Gregory considered IQ as a

variable in relationship to mobility. They found that test intelligence increases with distance of migration from original place of residence. In this case, however, the original points were farms or small towns and the search for economic opportunities seemed to be behind mobility. These authors did not consider the number of moves made nor the recency of the moves, but only the distance from the origin.

17. Downie found no difference in the IQ of mobile and non-mobiles. He considered the relationship of social adjustment to mobility and found that those who had made relatively few moves were more readily accepted socially than were the non-mobiles or highly mobile persons. The acceptance, in this case, could have depended more on the attitude of the local pupils toward newcomers than on the newcomer's attitude toward the local pupils.

Literature related to mobility and reading achievement

The following conclusions appear to summarize the literature related to mobility and reading achievement according to Snipes:

1. The number of moves pupils make do not appear to have a detrimental effect on achievement in reading. Rather, moving appears to strengthen achievement in this specific variable.

2. The data seem to indicate that pupils who have had some experience in various schools tend to score higher on tests of reading achievement. The grade levels at which these changes occur are independent of achievement.

3. Pupils who have lived in other states and countries appear to be favored in reading

achievement over non-movers or in-state movers.

4. No specific area of reading achievement (reading vocabulary or reading comprehension) appears to be favored in moving. However, differences are more explicit in the area of reading comprehension than in reading vocabulary.

5. The research lends weight to the idea that the problems of the mobile child are probably not academic problems. This seems to be important to modern-day teachers who are basically concerned with academic progress, yet are faced with pupil mobility problems.

6. That mobility is a concern of the public schools cannot be denied. Mobility is not limited to the very poor or migrated population.

7. Recent research points out that certain identifiable patterns may be noted in mobility trends. The most obvious patterns are those revealing that individuals who move do so according to certain aspects of sex, occupation, age, intelligence, and education.

8. Studies tend to show that mobility is a far-reaching, multi-faceted aspect of our society.

9. Smith found a small positive relationship between IQ and the number of moves made.

10. Brown found no appreciable difference between the school achievement or IQ of migrants and non-migrants.

11. Snipes' findings revealed that mobility may be a significant variable in reading achievement. However, the relationship is positive: the moving pupils achieving greater success in reading vocabulary and reading comprehension.

12. Sackett and Daugherty concluded that the mobile child may be better prepared in some areas of reading achievement than the non-mobile child.

13. Bollenbacher concluded that when IQ and social status are controlled, the mobile child is the least capable.

14. In view of the variations in the findings repeated above, and in view of the general paucity of valid information concerning the correlates of school mobility, the need for studies of thetype herein undertaken appears to be evident.

Summary of Basic Findings

The summary of the data pertinent to this research on the tested differences, if any, was determined for variable of the California Short-Form Test of Mental Maturity, the California Achievement Test, and Warner's Index of Status Characteristics between a selected group of mobile and non-mobile pupils in the fifth grade in Clark County, Georgia, 1967-68, and is presented below.

California Short-Form Test of Mental Maturity
Table 1

On the California Short-Form Test of Mental Maturity, (Intelligence Quotients), the following statistical measures were obtained: the mobiles, a mean score of 101.50, a standard deviation of 10.39, and a standard error of the mean of 1.96. For the non-mobiles, a mean score of 101.83, a standard deviation of 11.95, and a standard error of the mean of 2.29. The scores for the two groups showed a difference of the means of .33, with a standard error of the difference between the means of 2.06, and a "t" of .16 for .01 per cent level of confidence, with 56 degrees of freedom.

California Achievement Test
Table 2

On the California Achievement Test (Reading Vocabulary), the following statistical measures were obtained: the mobiles, a mean score of 35.70, a standard deviation of 3.03, and a standard error of the mean of .56. For the non-mobiles, a mean score of 31.59, a standard deviation of 6.39, and a standard error of the mean of 1.19. The scores for the two groups showed a difference of the means of 4.11, with a standard error of the difference between the means of .91, and a "t" of 4.516 for the .01 per cent level of confidence, with 58 degrees of freedom.

California Achievement Test
Table 3

On the California Achievement Test (Reading Comprehension), the following statistical measures were obtained: the mobiles, a mean score of 43.29, a standard deviation of 5.40, and a standard error of the mean of 1.01. For the non-mobiles, a mean score of 42.20, a standard deviation of 8.55, and a standard error of the mean of 1.59. The scores for the two groups showed a difference of the means of 1.09, with a standard error of the difference between the means of 1.304 and a "t" of .835 for the .01 per cent level of confidence, with 58 degrees of freedom.

Intercorrelations
Table 4

On the Intercorrelations, the mobile group obtained the following statistical measures: on the paired variables of reading vocabulary and reading comprehension, the "r" was .31 with a "t" of 1.73, which was not significant; on the paired variables of reading vocabulary and socio-economic status, the "r" was .30, with a "t" of 1.67, which was not significant; on the paired variables of reading vocabulary and intelligence quotient, the "r" was .15, with a "t" of .80, which was not significant; and on the paired variables of reading comprehension and socio-economic status, the "r" was .002, with a "t" of .12, which was not significant.

Intercorrelations
Table 5

On the Intercorrelations, the non-mobile group obtained the following statistical measures: on the paired variables of reading vocabulary and reading comprehension, the "r" was .61, with a "t" of 4.08, which was significant; on the paired variables of reading vocabulary and socio-economic status, the "r" was .32, with a "t" of 1.78, which was not significant; on the paired variables of reading vocabulary and intelligence quotient, the "r" was .73, with a "t" of 5.65, which was significant; and on the paired variables of reading comprehension and socio-economic status, the "r" was .37, with a "t" of 2.15, which was not significant.

Conclusions

The conclusions are based upon the data collected during the research. These data were presented previously in tabular and textual forms. The interpretation of the data yielded the findings which provide the basis for the conclusions which are presented as generalized answers to the specific questions posed as the specific purposes of this study.

1. That there is no significant difference between reading achievement and socio-economic status.

2. That there is no relationship in socio-economic status and any of the variables.

3. That the problems of the mobile child are not academic problems.

4. That the two groups (mobile and non-mobile) were experiencing the same and/or similar levels of mental growth and development; hence, any differences could not be attributed to disparities in intelligence.

5. That the two groups (mobile and non-mobile) were experiencing meaningful differences in scholastic achievement in favor of the mobile group.

6. That the mobile group of fifth graders was significantly superior in the level of achievement in reading vocabulary.

7. That there was no significant difference in performance in reading comprehension between the two groups; hence, there was not any advantage or disadvantage in being a mobile or non-mobile pupil in gaining superior performance in the area of reading comprehension.

8. That attendance at more than one school does not seriously affect the achievement of reading comprehension of fifth grade pupils.

9. That the two groups (mobile and non-mobile) were not drawn from different socio-economic levels in the community.

10. That reading vocabulary and reading comprehension are quite similar factors in the activity of reading for the non-mobile group.

Implications

The analysis and interpretation of the data would appear to warrant the implications below:

1. That the mobility of pupils is not limited to the very poor or migrant population.

2. That the scholastic performance of the two groups may be more greatly influenced by teaching methods used and levels of aspirations than by any difference in the level of intelligence, or the mobility of pupils.

3. That mobile and non-mobile fifth grade pupils are exposed to and assimilate the same or similar word experiences either at home or at school, or both.

4. That the reading comprehension of mobile and non-mobile fifth grade pupils is affected more seriously by factors other than residential mobility.

Recommendations

The following specific recommendations seem justifiable:

1. Enrichment experiences geared toward raising the comprehension level of the mobile group, particularly since these pupil had already made significant gains in vocabulary development.

2. A comprehensive reading program with provision for corrective and remedial services.

One of the chief values of this study, as the writer sees it, is to suggest follow-up investigations which would shed additional light upon the problems of mobility and reading achievement. It is felt that this study has been a step in the right direction, but that much more needs to be done. The conditions of the study were such that sweeping generalizations are probably not justified.

The following lines of further investigations seem to offer promise in the solution of the problem of reading achievement:

3. A more comprehensive study to determine to what extent pupil mobility seriously

affects not only reading competence, but also achievement in the regular school subjects.

4. A study to determine which types of remedial teaching of reading in elementary schools have greatest potential for effective reading competence development.

5. A study to determine which types of reading deficiencies occur most frequently among mobile and non-mobile pupils, respectively.

6. A study to determine the difference between inter-school attendance area mobility and intra-school mobility as an influence upon pupil learning.

BIBLIOGRAPHY

Books

Adams, L. P. and Aronson, R. L. Workers and Industrial Change. Ithaca, New York: Cornell University, 1957.

Bakke, Wright E., et al. Labor Mobility and Economic Opportunity. New York: John Wiley and Sons, Inc., 1954.

Blumen, Isadore, et al. The Industrial Mobility of Labor as a Probability Process. Ithaca, New York: Cornell University, 1955.

Francis, Kenneth V., and Fillmore, Eva. Influence of Environment Upon Personality of Children. Iowa City: University of Iowa Press, 1954.

Palmer, Gladys. Labor Mobility in Six Cities. New York: Social Science Research Council, 1959.

Rossi, Peter H. Why Families Move. Glencoe, Illinois: The Free Press, 1955.

Russell, D. H. Children Learn to Read. 2nd ed. Atlanta: Ginn and Company, 1961.

Shapiro, H. L. Migration and Environment. New York: Oxford University Press, 1939.

Sorokin, Pitirim. School Mobility. New York: Harper and Brothers, 1947.

Spache, George D. Toward Better Reading. Illinois: The Garrard Publishing Company, 1963.

Strickland, Ruth. The Language Arts in the Elementary School. Boston: D. D. Heath and Company, 1957.

Tinker, Miles A. Teaching Elementary Reading. New York: Appleton-Century Crofts, Inc., 1952.

Articles and Periodicals

Artley, A. S. "The Appraisal of Reading Comprehension," Journal of Educational Psychology, XXXIV (January, 1943), 67-89.

Bell, J. W., and Green, A. S. "Pupil Mobility Problems in Chicago," The American School Board Journal (March, 1957), 41-42.

Blair, H. E. "Human Relations Problems of Migratory Students," National Association of Secondary School Principals Bulletin, Volume 39 (March, 1955).

Bollenbacher, Joan. "Study of the Effect of Mobility on Reading Achievement," Reading Teacher, XIX, No. 4 (March, 1966), 356-360.

Corbally, John E. "Pupil Mobility in the Public Schools of Washington," University of Washington Publications in Social Sciences (July, 1930).

Downie, N. M. "Comparison with Children Who Hame Moved From School to School With Those Who Have Been in Continuous Residence on Various Factors of Adjustment," Journal of Educational Psychology, Volume 44 (January, 1953), 50.

Dunsen, B. V. "Adequate Education for Migrant Children," Elementary School Journal, Volume 55 (October, 1954).

Gates, Arthur I. "Teaching Reading," What Research Says Series (September, 1960), 11.

Gregory, C. L. and Philbad, C. T. "Selective Aspects of Migration Among Missouri High School Graduates," American Sociological Review (January, 1954), 314-324.

Hoyt, M. M. "Newcomers as Resources," Educational Leadership, Volume 14 (January, 1957).

Jahoda, M. "Problems of Living in a Changing Society," American Association of University Women, Volume 49 (March, 1956).

Martin, F. K. "Mobility," Childhood Education (September, 1957).

Phillips, B. N. "Impact of Pupil Mobility on the School," Educational Administration and Superintendents Journal, Volume XL (February, 1957).

Punke, H. H. "Educational Implications of a Mobile Population," Elementary School Journal, Volume XXXII (March, 1933), 514.

Sackett, E. B. "The Effects of Moving on the Education of Children," Elementary School Journal (March, 1955), 517-526.

Smith, M. "Some Relationships Between Intelligence and Geographic Mobility," American Sociological Review (March, 1943), 647.

Snipes, Walter T. "The Effect of Moving on Reading Achievement," The Reading Teacher (December, 1966), 242.

Wood, Helen C. "Educating Migrant Children," California Journal of Elementary Education, Volume XXII (May, 1954).

Unpublished Materials

Brown, James S. "A Comparative Study of the Achievement and Intelligence of the Migratory and Non-migratory Pupils in the Senior High School of Carbon Hill, Alabama." Unpublished Master's thesis, the University of Alabama, Tuscaloosa, 1935.

Davis, Tiny Seay. "A Comparative Study of Transported and Non-transported Students of the Buena Vista High School, Buena Vista, Georgia." Unpublished Master's thesis, School of Education, Atlanta University, 1955.

Daugherty, Shirley L. "An Analytical Study of Factors Associated with School Mobility." Unpublished Master's thesis, School of Education, the University of Georgia, 1958.

Dawson, Floyd. "A Comparative Study of the Achievement and Intelligence of the Migratory and Non-migratory Student in Four Kansas High Schools." Unpublished Master's thesis, School of Education, Kansas State Teachers College, 1947.

Dorville, Calvin Josephus. "A Comparison of the Academic Achievement of a Selected Group of Migrant and Non-migrant Pupils in Palm Beach County, Florida, 1957-60." Unpublished Master's thesis, School of Education, Atlanta University, 1962.

Moore, Katherine T. "A Comparative Study of School Adjustments of Mobile and Non-mobile Children in Walton County, Georgia." Unpublished Master's thesis, School of Education, the University of Georgia, 1941.

Public Documents

U. S. Bureau of the Census. Nineteenth Census of the United States: 1950. Population, Vol. II.

U. S. Bureau of the Census. Twentieth Census of the United States: 1960. Population, Vol. VII.

APPENDIX

VITA

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